Special Issue

Property and Structure Optimization of Piezoelectric Materials

Message from the Guest Editors

Piezoelectric materials have been widely used in a variety of applications, for example, as actuators, pressure sensors, and ultrasonic transducers. They are one of the key energy materials which can be used to carry out the conversion of mechanical energy to electric energy. Within this research field, the performance of lead-free piezoelectric material is one of the central issues. To increase the performance, it is necessary to acquire more fundamental insights into the microscopic origin of properties and the optimization of material on process, properties, and structure. In the future, developments in the piezoelectric materials field can be expected to be driven by the optimization of their properties and structure. In particular, the multifunctional properties and high performance resulting from controlling microstructure may enable new functionalities. This Special Issue aims to expand upon our understanding of piezoelectric materials, with insights based on new processes, theories about their properties, optimization of properties and structure, etc.

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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